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Attorney Docket # 4925-14

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Mika Leppinen et al.

Serial No.: 09/435,602

Filed: November 5, 1999

For: System And Method For Effective Use Of Air  
Link Between Mobile Stations And Gateway Servers

Examiner: Pollack, Melvin H.  
Group Art: 2152

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Name of applicant, assignee or Registered Representative

Signature

November 23, 2004

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**APPEAL BRIEF**

SIR:

This is an appeal, pursuant to 37 C.F.R. §41.37 from the decision of the Examiner in the above-identified application, as set forth in the Final Office Action wherein the Examiner finally rejected appellant's claims. The rejected claims are reproduced in the Appendix A attached hereto. A Notice of Appeal was filed on August 23, 2004.

The fee of \$330.00 for filing an Appeal Brief pursuant to 37 C.F.R. §41.20 is submitted herewith. Appellant requests a one-month Extension of Time of the original shortened statutory response period to file this Appeal Brief. A Petition for the one-month extension of time is enclosed herewith along with the fee of \$110.00. Any additional fees or charges in connection with

this application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

### **REAL PARTY IN INTEREST**

The assignee, Nokia Corporation, of applicant, Mika Leppinen, is the real party of interest in the above-identified U.S. Patent Application.

### **RELATED APPEALS AND INTERFERENCES**

There are no other appeals and/or interferences related to the above-identified application at the present time.

### **STATUS OF CLAIMS**

Claims 1-12 have been rejected. Claims 1-12 are on appeal.

### **STATUS OF AMENDMENTS**

An Amendment was filed on June 28, 2004 subsequent to the Final Office Action. In response, on August 30, 2004, the Examiner issued an Advisory Action in which he states that the request for reconsideration has been considered but does not place the application in condition for allowance. The Examiner further states that the Amendment after final would be entered on Appeal.

### **SUMMARY OF THE INVENTION**

Appellant's invention relates to a system and method for minimizing usage of radio resources between a mobile station and a gateway server while the mobile station is communicating

with a web server and the content or resource specified by the user has been moved to a different location. According to the present invention, a mobile station 12 transmits to a gateway server 16 a request for content and/or resource from a webserver 18 (see page 8, lines 14-16; and page 9, lines 15-17 of the present specification). The gateway server then transmits the request to the web server 18 (page 9, lines 17-18). If the requested content and/or resource has moved to a new location, the web server 18 returns a redirection message to the gateway server 16 (page 9, lines 19-20). The gateway server 16 transmits another request for the content and/or resource to the new location without communicating the redirection message to the mobile station (page 9, lines 10-11 and 20-21). That is, the necessary tasks associated with redirection messages are handled by the gateway server (page 5, lines 5-21).

After receiving the requested content and/or resource, the gateway server 16 transmits the requested content and/or resource to the mobile station 12 (page 9, lines 12-13; and page 10, lines 2-4). The processing of the redirection messages by the gateway server is transparent to the mobile station so that the mobile station receives the requested content and/or resource without sending another request to a webserver (page 5, lines 7-10). Accordingly, the present invention minimizes the communications over the air interface between the requesting mobile client and the gateway server (page 5, lines 5-7).

#### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be review are as follows:

1. The rejection of claims 1, 2, and 5-11 under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,505,241 (Pitts) in view of U.S. Patent No. 6,226,752 (Gupta);

2. The rejection of claims 3 and 12 under 35 U.S.C. §103 as unpatentable over Pitts and Gupta in further view of U.S. Patent No. 6,343,323 (Kalpio); and
3. The rejection of claim 4 under 35 U.S.C. §103 as unpatentable over Pitts and Gupta in further view of U.S. Patent No. 6,457,060 (Martin).

## **ARGUMENT**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In view of the following argument, the rejection of independent claims 1 and 8 does not meet at least the third criteria listed above because neither Pitts, Gupta, nor the combination thereof, teach or suggest the recitations of (1) receiving a redirection message by the gateway server from the web server, the redirection message indicating a new location of the at least one of content and resource, and (2) creating and transmitting by the gateway server to one of the web server and another web server another request for the at least one of content and resource at the new location without communicating the received redirection message to the mobile station, as recited in each of independent claims 1 and 8.

According to Pitts, a digital computer network includes a Network Distributed Cache (NDC) server site 22, an NDC client site 24, and a plurality of intermediate NDC sites 26A,

26B (see col. 9, lines 40-43 of Pitts). The NDC server site 22 includes a hard disk 32 storing data that may be accessed by the client site 24 (col. 9, lines 46-47). A client workstation 42 communicates with the NDC client 24 by an Ethernet Local Area Network (LAN) using a network protocol (col. 9, lines 50-53). The series of NDC sites 22, 24, 26A, 26B linked by DTP messages 52 form a chain connecting the client workstation 42 to the NDC server site 22 (col. 10, lines 44-46). Any node in a network of processors that has sufficient surplus RAM may be configured as an NDC site (col. 10, lines 39-41).

Col. 11, line 7 to col. 12, line 5 in Pitts describes the process of using a client workstation to retrieve data from a webserver. According to Pitts, a client workstation 42 requests to read data on a hard disk 32 at NDC server 22 (col. 11, lines 7-9). The request is first received at the client site 24 which is the first node of the NDC chain between the work station 42 and the server site 22 (col. 11, lines 10-12). The cache of the client site 24 is checked to see if the requested information is stored there (col. 11, lines 21-23). If the information is there, the information is returned to the client workstation (col. 11, lines 23-27). If the information is not there, the request is sent further downstream on the NDC chain toward the hard disk 32 (col. 11, lines 35-39). If none of the sites on the NDC chain have the information in cache, then the hard disk 32 itself is accessed to get the information (col. 11, lines 54-58).

The request made by the client workstation 42 for data on hard disk 32 at the NDC server 22 is in Pitts is analogous to the request by mobile station 12 for content or resources on webserver 18, as recited in the claimed invention. However, Pitts fails to teach or suggest that the webserver 22 sends a redirection message, as recited in independent claims 1 and 8. Instead, Pitts discloses that if a copy of the requested information is found at one of the intermediate sites in the NDC chain between the workstation and the webserver, before the request has reached the

webserver 22, the information is sent back upstream to the client (see col. 11, lines 2-6). This sending of information from an intermediate site can not be considered a redirection message from a webserver as recited in the claims, because the location of the requested information, i.e., the hard disk 32 at webserver 22, has not changed. Since Pitts fails to teach that the data is moved from the hard disk 32, there is no need for the webserver 22 of Pitts to send a redirection message. Accordingly, Pitts fails to teach or suggest receiving a redirection message from the webserver, as expressly recited in independent claims 1 and 8.

Moreover, Pitts is silent regarding what to do if the requested information is not found on the hard disk 32 at the webserver 22. Since Pitts fails to disclose that the location of the requested content or resource has changed. Pitts also fails to teach or suggest creating and transmitting another request to a new location, without communicating to the station which requested the information, as is also expressly recited in independent claims 1 and 8.

The Examiner states that the receipt of a redirection message is disclosed in col. 11, lines 45-60, of Pitts because the servers are checked one at a time to determine which server has the information in cache. As noted above, the checking of the cache at each site and the sending of the request downstream to the next site along the chain of NDC sites between the client workstation 42 and the NDC server site 22 does not constitute a redirection message sent from the webserver. Instead, each intermediate site between the requesting workstation and the webserver 22 is checked to determine whether a copy of the requested information is available at that intermediate site. There is no need for a redirection message in Pitts because the location of the requested content or resource, i.e., the hard disk 32, remains the same and the request is forwarded downstream toward the origin of the information if the information is not found at any of the intermediate sites.

Accordingly, Pitts fails to teach or suggest receiving a redirection message from the webserver, as expressly recited in independent claims 1 and 8.

The Examiner further states that col. 11, lines 45-60 and arrows 54, 56 in Fig. 1 discloses the step of creating and transmitting by the gateway server to one of the web server and another web server another request for the at least one of content and resource at the new location in response to the redirection message and without communicating the redirection message to the station. The Examiner states that the arrows show the pathway of the redirection message and shows that they do not travel back to the station. However, the arrows 54 and 56 are merely used to disclose the directions downstream 54 and upstream 56 of a chain of NDC sites between a client workstation 42 and the target NDC server site 22 (see col. 10, lines 44-65). Since the location of the requested content or resource in the original request remains at the NDC server site 22, Pitts fails to teach or suggest "creating and transmitting by the gateway server to one of the web server and another web server another request for the at least one of content and resource at the new location in response to the redirection message", as expressly recited in independent claims 1 and 8.

Gupta fails to teach or suggest what Pitts lacks. Gupta discloses a method and apparatus for authenticating users wherein requests may be sent over wireless networks. Since Gupta relates to authentication of users, Gupta fails to teach or suggest (1) receiving a redirection message from the webserver of the original request, after a user has made a request for at least one of content and resource located on the web server and (2) creating and transmitting another request to the new location, without communicating to the station which requested the information, as expressly recited in independent claims 1 and 8.

For the foregoing reasons, it is respectfully submitted that the combined teachings of Pitts and Gupta fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in claims. The Final Rejection of the independent claims 1-8 should be reversed.

Dependent claims 2-7 and 9-12, each being dependent on one of independent claims 1 and 8, should be allowable for at least the same reasons as are independent claims 1 and 8.

Dependent claim 3 further recites that the new location is included as a header transmitted with the at least one of content and resource. The Examiner states that this limitation is obvious because Kalpio discloses that information is contained in a header. Kalpio relates to resource retrieval over a source network and discloses that a proxy arranged between the client and content server may request and receive from the content server a header with billing and/or access restriction information. There is no teaching or suggestion for sending redirection information or a new location of the data in the header. Accordingly, dependent claim 3 is allowable over Pitts and Gupta in further view of Kalpio.

Dependent claim 4 recites "wherein the first protocol of step (a) is based on the Wireless Application Protocol (WAP)". The Examiner states that Gupta discloses a wireless network and that Martin discloses a that WAP is a protocol usable by wireless devices. However, Martin relates to using aliases for URLs and therefore also fails to teach or suggest anything regarding redirection messages. Since neither Pitts, Gupta, nor Martin disclose redirection messages, dependent claim 4 is allowable over Pitts and Gupta in further view of Martin.

**CONCLUSION**

For the foregoing reasons, it is respectfully submitted that appellant's claims are not rendered obvious and are, therefore, patentable over the art of record, and the Examiner's rejections should be reversed.

Respectfully submitted,  
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## APPENDIX

(previously presented) A method for minimizing data transmission between a mobile station and a gateway server, comprising the steps of:

- (a) transmitting by a mobile station to a gateway server a request for at least one of content and resource located on a web server using a first protocol;
- (b) transmitting the request by the gateway server to the web server using a second protocol that is compatible with that used by the web server;
- (c) receiving a redirection message by the gateway server from the web server, the redirection message indicating a new location of the at least one of content and resource;
- (d) creating and transmitting by the gateway server to one of the web server and another web server another request for the at least one of content and resource at the new location in response to the redirection message and without communicating the redirection message to the mobile station;
- (e) receiving by the gateway server the at least one of content and resource from said one of the web server and another web server; and
- (f) transmitting the at least one of content and resource from the gateway server to the mobile station using the first protocol.

2. (previously presented) The method of claim 1, further comprising the step (g) of transmitting the new location of the at least one of content and resource to the mobile station from the gateway server after said step (e).

3. (original) The method of claim 2, wherein the new location is included as a header transmitted with the at least one of content and resource.

4. (original) The method of claim 1, wherein the first protocol of step (a) is based on the Wireless Application Protocol.

5. (original) The method of claim 1, wherein the second protocol of step (b) is based on a World-Wide Web protocol.

6. (original) The method of claim 5, wherein the second protocol is the HyperText Transport Protocol.

7. (original) The method of claim 1, wherein the request is coded as a Uniform Resource Locator.

8. (original) A system for minimizing data transmission between a mobile station and a gateway server, comprising:

a mobile station for transmitting a request for one of content and resource at a location using a first protocol;

a gateway server, connected to said mobile station, for receiving the request from said mobile station using the first protocol and for encoding and transmitting the request using a second protocol; and

a web server connected to said gateway server for storing at least one of content and resource, said web server receiving the encoded request from said gateway server and sending a redirection message to said gateway server indicating a new location of the requested one of content or resource, said gateway server receiving the redirection message and sending a request to the new location without communicating the redirection message to said mobile station, said gateway server accessing the requested one of content and resource from one of said web server and another web server in accordance with the new location and transmitting to said mobile receiver the requested one of content and resource.

9. (original) The system of claim 8, wherein the request from said gateway server is a Uniform Resource Locator.

10. (original) The system of claim 8, wherein the first protocol is the Wireless Application Protocol and the second protocol is the HyperText Transfer Protocol.

11. (original) The system of claim 8, wherein said gateway server is configured to send the new location to said mobile station together with the requested one of content and resource.

12. (original) The system of claim 8, wherein said web server includes the requested one of content and resource at the new location.